

What is claimed is :

1. A pile assembly employed in engineering and construction works comprising

a pointed leading member subsequently mounted at one end thereof;

a pile body of a hollow column;

a sidewall having a plurality of openings; and

a core assembly having a plurality of wedge members mounted within said pile body,

wherein a guide rail allowing the guide of said core assembly is provided within said pile assembly,

wherein said core assembly is guided via said guide rail to appropriately lead the tips of said wedge members to said openings.

2. A pile assembly as defined in claim 1 in which said pile assembly is formed by splicing together the pile body divided in more than 2 portions, with said core assembly provided in each of said divided pile body portion.

3. A pile assembly as defined in claim 2 in which a plurality of said guide rails are provided so as to extend across said divided pile body portions within said pile assembly.

4. A pile assembly as defined in claim 2 in which a plurality of said guide rails are provided in said divided pile body portions respectively.

5. A pile assembly as defined in claim 1 in which said openings are formed as incised apertures opened by exertion of outer force, wherein at least the lower edge portions of tongue-shaped pieces of said opened apertures are connected to said pile body, while said tongue-shaped pieces constitute slopes.

6. A pile assembly as defined in one of claims 1 to 5 and further provided with a spiral blade for digging soil on outer wall thereof for facilitating said pile assembly to be penetrated in the earth.

7. A pile assembly as defined in one of claims 1 to 6 in which said pointed leading member is provided with excavating components.

8. A pile assembly as defined in one of claims 1 to 7 in which said wedge members are formed to have length different from the length of wedge members adjacent thereto.

9. A pile assembly as defined in one of claims 1 to 8 in which the cross-sectional shape of said pile body is designed to be either circular or rectangular.

10. A pile assembly as defined in claims 1 to 9 in which said wedge members are mounted on said core assembly at corresponding position with said openings by components capable of changing angles, such as hinges.

11. A magnet cross gauge provided with magnets employed in manufacturing of said pile assembly as defined in one of claims 1 to 10,

wherein said magnet cross gauge allows an insertion of a plurality of said guide rails in said pile assembly while maintaining said guide rails in parallel with respect to one another,

wherein further capable of fixing said guide rails to the inner wall of said pile body in parallel with respect to one another, and being removed from said pile while said guide rails remain fixed to the inner wall of said pile body thereafter.

12. A magnet cross gauge as defined in claim 11 further comprising
a first magnet cross gauge member provided with a plurality of recesses on periphery thereof enabling said guide rails to be held therein, magnets mounted adjacent to said recesses, and a handle attached on one side thereof;
bar members fixed to said first magnet cross gauge member; and
a second magnet cross gauge member mounted to be movable or unmovable to said bar members while provided with a plurality of recesses on periphery thereof enabling said guide rails to be held therein and magnets mounted adjacent to said recesses.
13. A method for fixing said guide rails within said pile body by employing said magnet cross gauge as defined in claims 11 or 12 comprising
a step to maintain a plurality of said guide rails in parallel with respect to one another by employing said magnet cross gauge;
a step to determine the position of said guide rails within said pile body after inserting said guide rails maintained in parallel to one another within said pile body;
a step to fix each of said guide rails to the inner wall of said pile body; and
a step to remove only said magnet cross gauge from within said pile body while having said guide rails remain fixed to the inner wall of said pile body.
14. A method for fixing said guide rails as defined in claim 13 within said pile body in which said pile body is comprised of more than 2 said pile body portions, wherein said method for fixing said guide rails within said pile body is provided with a step performed prior thereto to splice together said pile body portions.
15. A method for fixing said guide rails as defined in claim 13 within said

pile body in which said pile body is comprised of more than 2 said pile body portions, wherein said method for fixing said guide rails within said pile body is performed to more than 2 said pile body portions respectively.

16. A method for manufacturing said pile assembly of one of claims 1 to 10 comprising

a step to fix said guide rails on the inner wall of said pile body either before or after said openings are formed on the sidewall of said pile body, and

a step to guide said core assembly provided with a plurality of wedge members with respective tips formed in acute angle within said pile body by employing said guide rails, and to position said core assembly so that the tips of said wedge members are placed adjacent to said openings.

17. A method for manufacturing said pile assembly as defined in claim 16 in which said pile body is comprised of more than 2 said pile body portions,

wherein said method for manufacturing said pile assembly includes a step to splice together said pile body portions before fixing said guide rails onto the inner wall of said pile body,

wherein said step to fix said guide rails onto the inner wall of said pile body is to install said guide rails so as to extend across a plurality of said pile body portions spliced together.

18. A method for manufacturing said pile assembly as defined in claim 16 in which said pile body is comprised of more than 2 said pile body portions,

wherein said step to fix said guide rails onto the inner wall of said pile body as well as said step to position the tips of said wedge members to be adjacent to said openings are performed to each of said pile body portions,

wherein a step to splice together said pile body portions each provided with said core assembly is performed subsequent thereto.

19. A method for manufacturing said pile assembly as mentioned in one of claims 16 to 18 comprising a step to fix a pointed leading member formed in a shape of cone or pyramid at one end of said pile assembly after performing said steps to fix said guide rails.